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| 09/896,156 | 06/29/2001 | Kenneth R. Rosensteel JR. | 52003203 | 7396 |

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| EXAMINER |
| LIN, WEN TAI |

| ART UNIT | PAPER NUMBER |
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| 2154 | |

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Please find below and/or attached an Office communication concerning this application or proceeding.

| | | | |
|------------------------------|------------------------|---------------------|--|
| Office Action Summary | Application No. | Applicant(s) | |
| | 09/896,156 | ROSENSTEEL ET AL. | |
| | Examiner | Art Unit | |
| | Wen-Tai Lin | 2154 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) Responsive to communication(s) filed on 5/18/20051.

2a) This action is FINAL. 2b) This action is non-final.

3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) Claim(s) 1-22 is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5) Claim(s) _____ is/are allowed.

6) Claim(s) 1-22 is/are rejected.

7) Claim(s) _____ is/are objected to.

8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) The specification is objected to by the Examiner.

10) The drawing(s) filed on _____ is/are: a) accepted or b) objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a) All b) Some * c) None of:
 1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. _____.
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) Notice of References Cited (PTO-892)

2) Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____

4) Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____

5) Notice of Informal Patent Application (PTO-152)

6) Other: _____

DETAILED ACTION

1. Claims 1-22 are presented for examination.
2. Claims 1-22 are objected to as being unclear in the meaning of the terms "blocking" and "unblocking". Specifically, these terms only appear in the claim languages, but are not properly defined in the specification. The confusion arises because the specification uses the term "blocked" to mean "stopped" (see e.g., paragraph 502) and on other occasion "block" (noun) is meant to be a measure of data size. To avoid the words "blocking" and "unblocking" from being interpreted as "stopping", "unstopping", "locking", "unlocking", or the like, Applicant is required to clarify or correct the terminology in response to this office action.
3. The objections to claims 6-7 and 16-17 in the previous office action are withdrawn in view of Applicant's responses to the issue.
4. Applicant is reminded to update the status of each of the copending applications listed on page 1 of the Specification whenever it becomes available.

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

6. Claims 1-3, 11-13 and 21-22 are rejected under 35 U.S.C. 102(e) as being anticipated by Prust [U.S. Pat. No. 6714968].

7. Prust was cited in the previous office action.

8. As to claim 1, Prust teaches the invention as claimed including: a method of accessing a first file on a disk system on one of a plurality of computer systems from a program executing on another of the plurality of computer systems[e.g., Abstract; Fig.2], wherein:

the plurality of computer systems comprises:

a first computer system containing the program communicating through an API with a first interface system; and a second computer system containing the disk system and a second interface system for communicating with the first interface system and for reading from and writing to the disk system [col.1, lines 49-67];

the first computer system and the second computer system are heterogeneous computer systems [col.3, lines 22-40; col.5, lines 60-63; col.6, lines 44-58; e.g., using Sun's SPARC computer as client (i.e., the first computer) and Apple computer as storage server (i.e., the second computer) is an example of heterogeneous computer systems, wherein the technique for transferring data in between is by using FTP or browser (see also Applicant's specification at paragraph #7, wherein FTP is characterized as a technique for transfer files between heterogeneous computers in the prior art)];

said method comprising:

- (A) opening a first session from the program via the API through the first interface system to the second interface system in order to access the first file on the disk system [col.1, lines 49-67];
- (B) blocking the first plurality of records into a first plurality of blocks [e.g., col.5, lines 20-27; see also Applicant's specification at paragraph #7];
- (C) transmitting the first plurality of blocks over the first session from a first one of the plurality of computer systems to a second one of the plurality of computer systems;
- (D) unblocking the first plurality of blocks into a second plurality of records on the second one of the plurality of computer systems; and
- (E) closing the first session after completing the transmitting in step (C) [col.5, lines 20-37; e.g., FTP is a block-based communication protocol].

9. As to claim 2, Prust further teaches that:

the first computer system is the first of the plurality of computer systems [205, Fig.2];

the second computer system is the second of the plurality of computer systems [210, Fig.2]; and

the method further comprises:

(F) receiving the first plurality of records via the API from the program; and

(G) writing the second plurality of records to the first file [col.1, lines 49-67];.

10. As to claim 3, Prust further teaches that:

the first computer system is the second of the plurality of computer systems; and

the second computer system is the first of the plurality of computer systems;

the method further comprises:

(F) reading the first plurality of records from the first file; and (G) receiving the second plurality of records in the program via the API [col.1, lines 56-61; col.7, lines 42-56; i.e., through the remote processing it indicates the storage server can run an application program and takes the role of transferring data back to the client computer that requested the processing.]

11. As to claims 11-13 and 21-22, since the features of these claims can also be found in claims 1-3 and 11, they are rejected for the same reasons set forth in the rejection of claims 1-3 and 11 above.

Claim Rejections - 35 USC § 103

12. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

13. Claims 4 and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Prust [U.S. Pat. No. 6714968], as applied to claims 1-3, 11-13 and 21-22 above, further in view of Official Notice.

14. As to claims 4 and 14, Prust does not specifically teach that the transmitting in step (C) utilizes a credit based flow control mechanism to flow control the first plurality of blocks; and the credit based flow control mechanism utilizes a block based credit counting each of the first plurality of blocks a one credit.

However, Official Notice is taken that in a fee-for-service business model, it is well known to charge a client according to the amount of data or traffic introduced by a service. Since Prust does not specifically teach that the remote storage service is for free, it is obvious that certain limitation on the file transfer could have been established. Official Notice is further taken that utilizing a credit based flow control for limiting the number of transferred data blocks is well known. It would have been obvious to one of

ordinary skill in the art at the time the invention was made to have utilized a similar flow control mechanism in Prust's system because the flow control is needed to avoid any over-use or abuse of the service.

15. Claims 5-8 and 15-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Prust [U.S. Pat. No. 6714968], as applied to claims 1-4, 11-14 and 21-22 above.

16. As to claims 5-7 and 15-17, Prust teaches the limitations as claimed in claims 1-3. Prust does not specifically teach that a second session may be started for data transferring in either direction (i.e., either from client to server or from server to client) before the first session is terminated. However, Prust teaches that the system is situated in a global network environment (such as Internet) which may uses HTTP as file transferring protocol [col.5, lines 34-37]. Additionally, it is well known in the art of Internet browsing that multiple TCP sessions can be established for either direction of file transfer [e.g., Fig.6]. For example, one may use a browser instance for uploading data to an Internet service provider's allocated web site, while at the same time browsing (i.e., downloading) the same site. Since Prust provides an Internet browsing environment for its client-server interaction, it is obvious that a Prust's client would be able to establish more than one communication sessions with the remote storage servers because (1) it is so allowed by a typical browser; and (2) Prust does not specifically limit the number of sessions to only one.

17. As to claims 8 and 18, Prust does not specifically teach that: the first computer system is a mainframe computer system; and the second computer system is a UNIX based computer system.

However, Prust teaches that a wide variety of different computers under different operating systems may be used for supporting the operations [col.3, lines 23-40; col.9, lines 1-15; col.8, lines 8-22]. However, Prust teaches that the system is situated in a global network environment (such as Internet) and a client may use a browser for file transferring between the client and servers [col.5, lines 34-37 and Fig.6]. It would have been obvious to one of ordinary skill in the art at the time the invention was made to allow a client, who uses a mainframe computer system to remotely access a UNIX based server because both types of computer systems are typical in the Internet environment.

18. Claims 9-10 and 19-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Prust [U.S. Pat. No. 6714968], as applied to claims 1-8, 11-18 and 21-22 above, further in view of AAPA [Applicant admitted prior art].

19. As to claims 9-10, Prust does not specifically teach conversion of data types between the first and second computer systems.

However, AAPA teaches that when data transferring between two heterogeneous computers via a utility such as FTP protocol, translation of incompatible data types (i.e.,

due to different character or integer formats) are performed at the two utility programs at both sides [Specification: page 2, lines 24-32].

It would have been obvious to one of ordinary skill in the art at the time the invention was made to perform conversion of data types in Prust's system because: (1) Prust allows data transferring between two heterogeneous computers via, e.g., FTP utility; and (2) conversion of incompatible data types is needed otherwise the receiving end won't be able to correctly interpret the data.

20. As to claims 19-20, since the features of these claims can also be found in claims 1 and 9-10, they are rejected for the same reasons set forth in the rejection of claims 1 and 9-10 above.

21. Applicant's arguments filed on 3/25/2005 for claims 1-22 have been fully considered but they are not deemed to be persuasive.

1. Regarding the 102 rejection on claim 1: applicant argues that the cited passages do not show that (i) Prust is capable of handling data transfer between heterogeneous computers. The cited different hardware platforms do not necessarily mean that their operating systems are different; (ii) Prust uses FTP to transfer files, rather than based on blocks within a file.

Examiner note: Applicant has not clearly defined the word "heterogeneous" is meant to be different hardware platforms or different software platforms. The cited passage clearly shows that Prust's system is able to deal with computers

of different hardware platforms. Further, Prust clearly teaches using FTP or browser as another embodiment for transferring files between the client and storage server. Since both FTP and browser are platform-independent, they are inherently suitable for heterogeneous computers, as admitted by Applicant at paragraph #7 of the specification. As for point 2(ii) above, it is noted that the cited "packetizing data files" reads on the claims because each packet may be equivalent to a block. Further, Applicant admits that "data transfers between systems is typically on a (blocked) record basis" I prior art systems (see paragraph #42 of the specification).

2. Regarding the rejection to claim 2: applicant argues that Prust's API is provided for accessing files, rather than for accessing plurality of records within a file.

Examiner note: Such specific argument is not found in the claim itself. In other words, Prust reads on the claim because a file may constitute a plurality of records, therefore accessing a file is equivalent to accessing the plurality of records in its entirety.

3. Regarding the rejection to claim 3: applicant argues that the cited passage only teaches transferring data from the client to the virtual storage area, but not the other direction.

Examiner note: It is inherent that FTP program is able to transfer files in both directions.

4. Regarding the rejection to claims 4 and 14: applicant argues that the official notice taken solely based on “common knowledge” rather than documentary evidence is inappropriate.

Examiner note: In well-known art an official notice is used for not having to supply documentary evidence until the counterpart challenges it. Since Applicant chooses to challenge the legitimacy of examiner’s use of official notices in the previous office action, rather than arguing the examiner’s ground of reasoning and requesting for documentary evidence, the official notices are deemed unchallenged and they are now considered as admitted prior art. See MPEP 2144.03 (C).

5. Regarding the rejections to claims 5-7 and 15-17: Applicant argues that in HTTP protocol a session is established per client’s request and the session is broken after the requested data has been transferred. Therefore, Prust’s HTTP servers could only support one session at a time for each client, rather than the suggested multiple simultaneous TCP sessions.

Examiner note: Applicant is reminded that in the rejections of these claims, the examiner cited an example that almost every internet surfer would agree that “*one may use a browser instance for uploading data to an Internet service*

provider's allocated web site, while at the same time browsing (i.e., downloading) the same site". In other words, while Applicant is correct about the one-session-per-request statement, it is well known that a client may make consecutive requests to an HTTP server before a previous request is completed. Such multiple-session scenario clearly satisfies the requirements included in claims 5-7 and 15-17.

6. Regarding objections to claim 8: applicant argues that the motivation for Prust to use mainframe computer as the first computer system because "Prust discusses that prior art systems have limited modes for accessing data files such as for example, requiring a user to load proprietary software on their computers in order to communicate data files to the remote storage."

Examiner note: The cited background section of Prust above serves as motivation for Prust to design a system/method to overcome the difficulty as stated. And indeed the prior art of record has shown its capability of transferring files over the internet for users of different platforms, which obviously includes mainframe users.

7. Regarding objections to claims 9-10 and 19-20: Applicant argues that in Prust's system client and server computers use compatible file handling systems, therefore there is no need for any data transformation in Prust's system.

Examiner note: Prust's system is designed for (1) client and server using the same operating system [col.5, line 43 – col.6, line 43] which enables one to access virtual storage in the same manner as accessing local storage devices and (2) for heterogeneous computers [col.6, line 45 – col.7, line 34] which enables one to access the virtual storage via platform-independent tools such as browser and FTP utility. The latter clearly needs data transformation as part of the FTP process.

For at least the reasons stated above, it is submitted that the prior art of record reads on the claims.

22. HIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

23. A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Conclusion

Examiner note: Examiner has cited particular columns and line numbers in the references as applied to the claims above for the convenience of the applicant. Although the specified citations are representative of the teachings of the art and are applied to the specific limitations within the individual claim, other passages and figures may apply as well. It is respectfully requested from the applicant in preparing responses, to fully consider the references in entirety as potentially teaching all or part of the claimed invention, as well as the context of the passage as taught by the prior art or disclosed by the Examiner.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Wen-Tai Lin whose telephone number is (571)272-3969. The examiner can normally be reached on Monday-Friday (8:00-5:00) . If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Follansbee can be reached on (571)272-3964. The fax phone numbers for the organization where this application or proceeding is assigned are as follows:

(703)872-9306 for official communications; and

(571)273-3969 for status inquires/draft communication.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published

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applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Wen-Tai Lin

May 18, 2005



5/18/05